

ABSTRACT OF THE DISCLOSURE

Thin-film semiconductor devices such as TFTs (thin-film transistors) and methods of fabricating the same. TFTs are formed on an insulating substrate. First, a substantially amorphous semiconductor coating is formed on the substrate. A protective coating transparent to laser radiation is formed on the semiconductor coating. The laminate is irradiated with laser radiation to improve the crystallinity of the semiconductor coating. Then, the protective coating is removed to expose the surface of the semiconductor coating. A coating for forming a gate-insulating film is formed. Subsequently, gate electrodes are formed. Another method relates to fabrication of semiconductor devices such as TFTs on an insulating substrate. After forming a first coating consisting mainly of aluminum nitride, a second coating consisting principally of silicon oxide is formed. Semiconductor devices such as TFTs or semiconductor circuits are built on the second coating serving as a base layer.